



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/575,560 05/21/00 FERGUSON

P A0312/7409/M

MM91/0827

RANDY J PRITZKER  
WOLF GREENFIELD & SACKS PC  
600 ATLANTIC AVENUE  
BOSTON MA 02210

EXAMINER

PHAN, T

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 08/27/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/575,560

Applicant(s)  
Ferguson et al.

Examiner  
TRONG PHAN

Art Unit  
2818



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 13, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) 10-15, 25, 26, and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 16-24, 27, 29, and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☒ Interview Summary (PTO-413) Paper No(s). 7
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 20) ☒ Other: claim 28 is missing

Art Unit: 2818

During the telephone interview of August 13, 2001, Mr. Mark Steinberg has elected Group I of claims 1-9, 16-24 and 29-30 to be examined without traverse and also has requested claim 11 to be included in Group II and claim 27 to be included in elected Group I. The examiner has agreed to include claim 11 into Group II and claim 27 into Group I.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita, 5,890,432, in view of Dingwall et al., 5,332,997.

Yamashita, 5,890,432, discloses in Fig. 4 a handset for a mobile communication system including:

input stage 105 receiving multi-bit digital signals TxDI to TxDQ;

digital to analog converter D/A 307.

What is not shown in Yamashita, 5,890,432, is the a switched capacitor network having a plurality of DACs as recited in claims 1-9, 27 and 30.

Art Unit: 2818

Dingwall et al., 5,332,997, discloses in Fig. 6 a system having a switched capacitor D/A converter network comprising a plurality of DACs 11 which each has a detail structure, as shown in Fig. 2, comprising a plurality of capacitors C0-C5 sharing charge with one another.

It would have been obvious under 35 USC 103(a) to one of ordinary skill in the art at the time of the invention was made to utilize the switched capacitor D/A converter network in Figs. 2 and 6 of Dingwall et al., 5,332,997, for the digital to analog converter D/A 307 in Fig. 4 of Yamashita, 5,890,432, for the purpose of loading data at a high speed (see lines 29-35, column 3 of Dingwall et al., 5,332,997).

3. Claims 16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrow et al., 5,036,322, in view of Dingwall et al., 5,332,997.

Barrow et al., 5,036,322, discloses in Fig. 2 a system comprising:  
binary weighted DAC 38;  
segmented DAC 36.

What is not shown in Fig. 2 of Barrow et al., 5,036,322, is the detail structure of the segmented DAC as recited in claims 16 and 29.

Art Unit: 2818

Dingwall et al., 5,332,997, discloses in Fig. 6 a system having a switched capacitor D/A converter network comprising a plurality of DACs 11 which each has a detail structure, as shown in Fig. 2, comprising a plurality of capacitors C0-C5 sharing charge with one another.

It would have been obvious under 35 USC 103(a) to one of ordinary skill in the art at the time of the invention was made to utilize the switched capacitor D/A converter network in Figs. 2 and 6 of Dingwall et al., 5,332,997, for the segmented DAC 36 in Fig. 2 of Barrow et al., 5,036,322, for the purpose of loading data at a high speed (see lines 29-35, column 3 of Dingwall et al., 5,332,997).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371<sup>9</sup> of this title before the invention thereof by the applicant for patent.

5. Claims 17-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Watson et al., 6,154,162.

Watson et al., 6,154,162, discloses in Fig. 4 a system comprising:

Art Unit: 2818

scrambler 42;

switched capacitor DAC 42 having a plurality of capacitors 70, 72 and 74.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321<sup>®</sup> may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-9 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 09/575,561. Although the conflicting claims are not identical, they are not patentably distinct from each other because all means as recited in claims 1-9 and 30 of the present application are seen to be included in rewording and rearranging claims 1-17 of copending Application No. 09/575,561.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 2818

8. Claims 1-9 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim of copending Application No. 09/575,562. Although the conflicting claims are not identical, they are not patentably distinct from each other because the switched capacitor DAC as recited in claims 1-9 and 30 are read on the switched capacitor DAC network as recited in claims 1-39 of copending Application No. 09/575,562.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagaraj, 4,894,620, Powell et al., 5,162,801, and Robertson et al., 6,124,813.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Trong Phan* whose telephone number is (703) 308-4870.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone numbers for the organization where this application or proceeding is

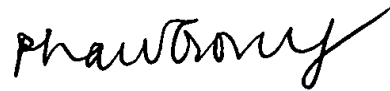
Application/Control Number: 09/575,560

Page 7

Art Unit: 2818

assigned are (703) 308-7724 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Phan Trong', with a stylized flourish at the end.

**TRONG PHAN  
PRIMARY EXAMINER**

August 16, 2001